

#### Shri Shivaji Shikshan Prasarak Mandal's Loknete Ramdas Patil Dhumal

# ARTS, SCIENCE & COMMERCE COLLEGE,

#### **RAHURI**

A Project Report On

# "Chatbot Application"

Submitted in partial fulfillment of the requirement of Department of Bachelor Of Computer Application,

As laid down by the Pune University.

During academic year 2023-2024

#### **SUBMITTED BY**

# THORAT GAYATRI BHAUSAHEB THORAT NISHA BALASAHEB

#### **SUBMITTED TO**

University Of Pune

2023 - 2024

**Under Guidance of** 

Prof. Adhav P. B.



# SHREE SHIVAJI SHIKSHAN PRASARAK MANDAL'S ARTS, SCIENCE & COMMERCE COLLEGE, RAHURI.

PHONE OFF. 02426 232746 FAX: - 02426 233078

Website: -www.asccrahuri.com

E-mail-rahuricollege@rediffmail.com

ID.NO.PU./AN/ASC/021/ (1978 )
SENIOR COLLEGE CODE NO:-124

PRINCIPAL

Dr.Anita Vetal

( M.A.BED.PHD)

# **CERTIFICATE**

This is certify that,

THORAT GAYATRI BHAUSAHEB
THORAT NISHA BALASAHEB

Has satisfactorily completed assigned project of BCA on "Chatbot Applications" as laid down by the University of Pune for the academic 2023-2024.

His/her performance is	
------------------------	--

Internal Examiner External Examiner Coordinator

(Prof. Adhav P.B.) (Prof. Dhage S.P.)



SR NO	TITLE	PAGE NO.
1.	Acknowledgement	04
2.	Abstract	06
3.	Introduction	08
3.1	Objective and Goal	09
3.2	Literature Survey	11
4.	System Analysis	13
4.1	Existing System	14
4.2	Requirement Analysis-Functional Requirement, Performance Requirement, Security Requirement	15
5.	System Design	19
5.1	Design Constraint	20
5.2	Data Model	23
5.3	System Model	25
5.4	User Interface	30
6.	Implementation Details	39
6.1	Hardware Specification	40
6.2	Software Specification	40
7.	Output And Report Testing	41
7.1	Black Box Testing and Data Validation Test Case	42
7.2	White Box Testing and Data Validation Test Case	43
8.	Conclusion and Recommendation	45
9.	Future Scope	47
10.	Bibliography and Reference	49

# **ACKNOWLEDGEMENT**

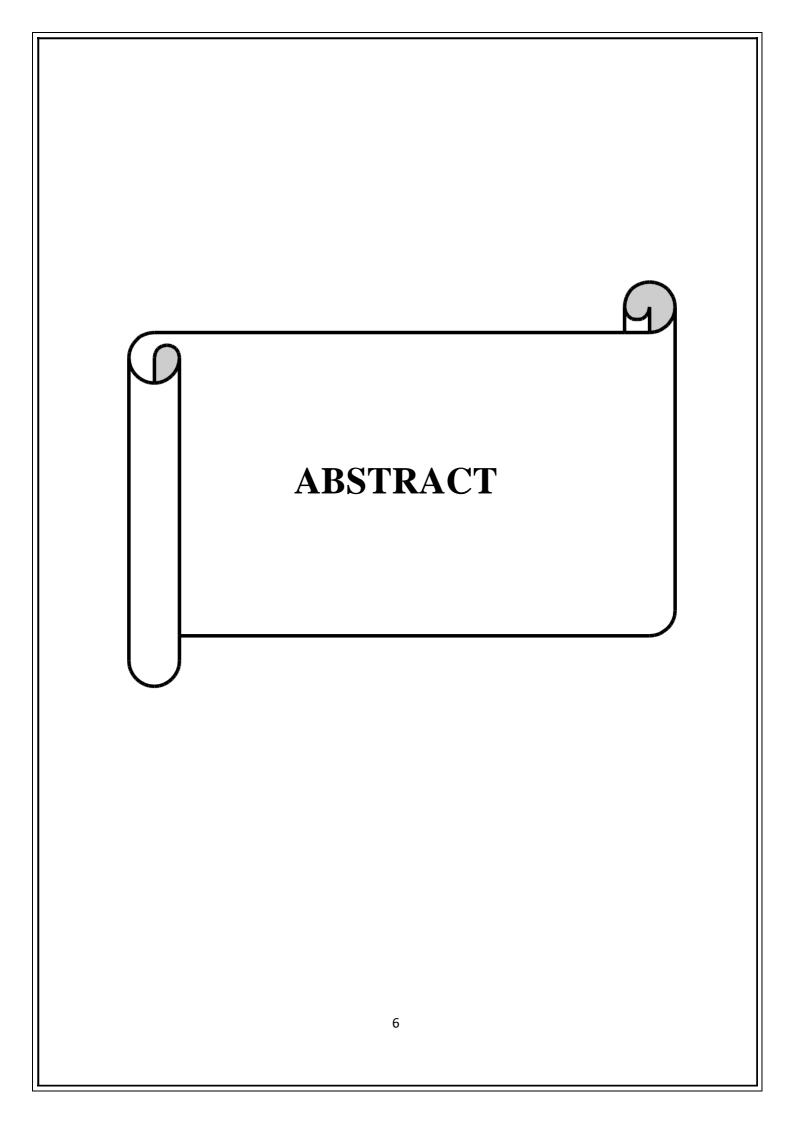
### **ACKNOWLEDGEMENT**

Before going further to the project details, I would like to thank those peoples who have helped in many ways for successful completion of this project.

We would like to thank our internal guide Prof. Adhav P.B. and head of department Prof. Dhage S.P. For the constant encouragement and assistance they provide us at every stage of the project.

They have spent their valuable time for us, suggested necessary changes and point out the limitations of my system.

I would also like to express my deep gratitude to my parents whose love and blessings have been a source of inspiration for me.

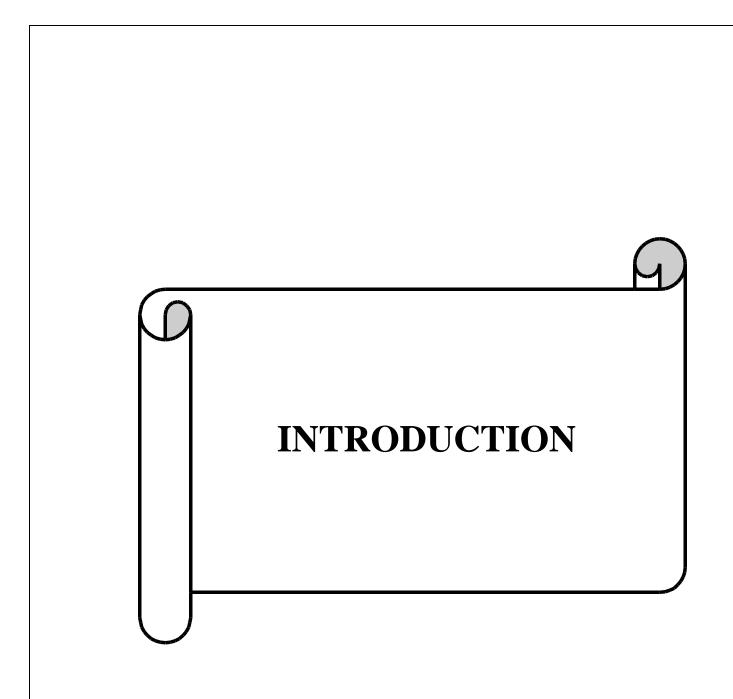


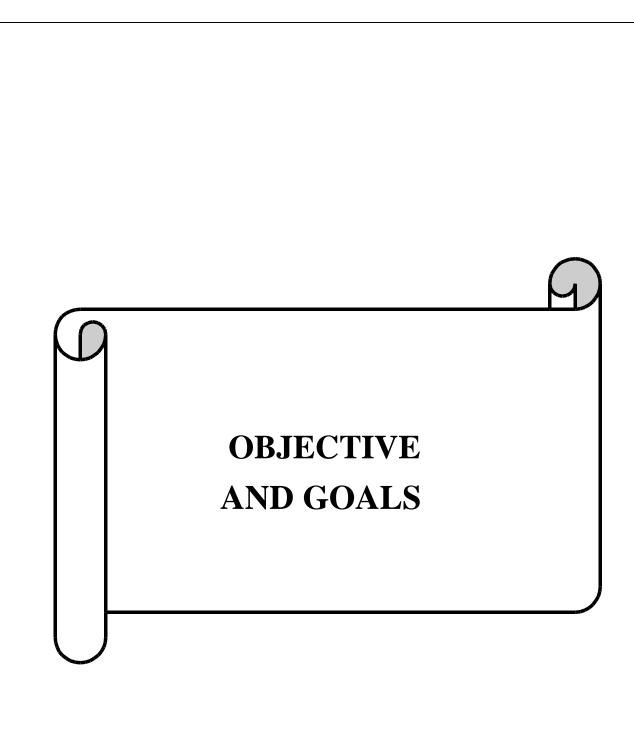
#### **ABSTRACT**

The main objective of chatbot application is a application used to conduct an chat conversation like text messaging instead of providing direct contact with a live human .

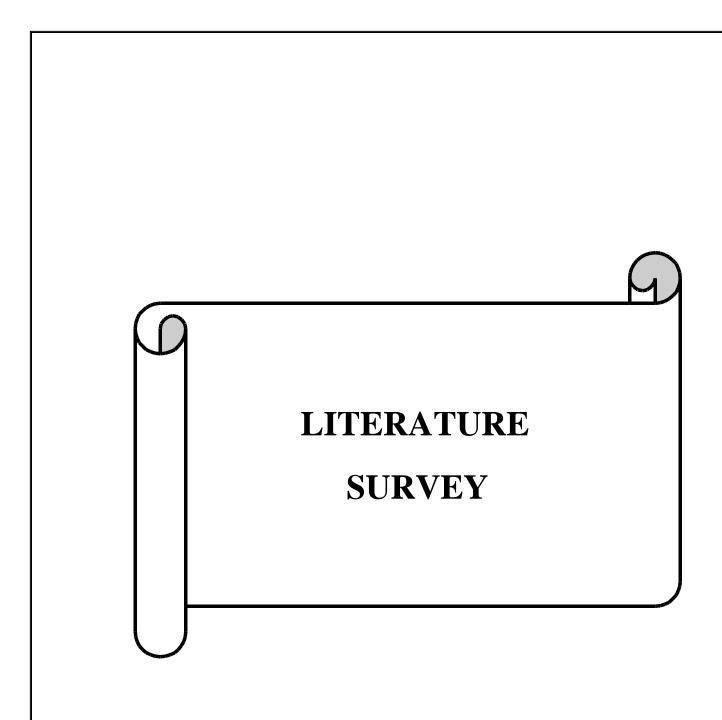
A chatbot application is an automated application that interacts with users. This chatbot application can communicate with end-users. The end-user can ask question with this application and chatbot will give automatically respond accordingly to questions.

In this application if question can not be found in database then chatbot send message that he can not be able to understand what user want.





	OBJECTIVE AND GOALS	
	Easy agass to information	
	Easy access to information.	
•	Provide a reliable and instant support system for students .	
•	Easily resolve many types of user queries and issues.	
	10	



# **FACT FINDING TECHNIQUE**

We are four fact-finding techniques in the system analysis.

- 1. Questionnaires
- 2. Interview
- 3. Record Review
- 4. Observation

#### 1.Questionnaires

We used this technique in the initial and final phase of my project. We conducted this session by asking document to the customer of the in the initial phases we prepared verification in customer then loan assign to a customer to get some basic information about the current system. We could find out the work structure of the organization.

And it's functioning. In the final stages we used the customer bank details and financial condition to get some numerical data that was required or was missing after all the observations.

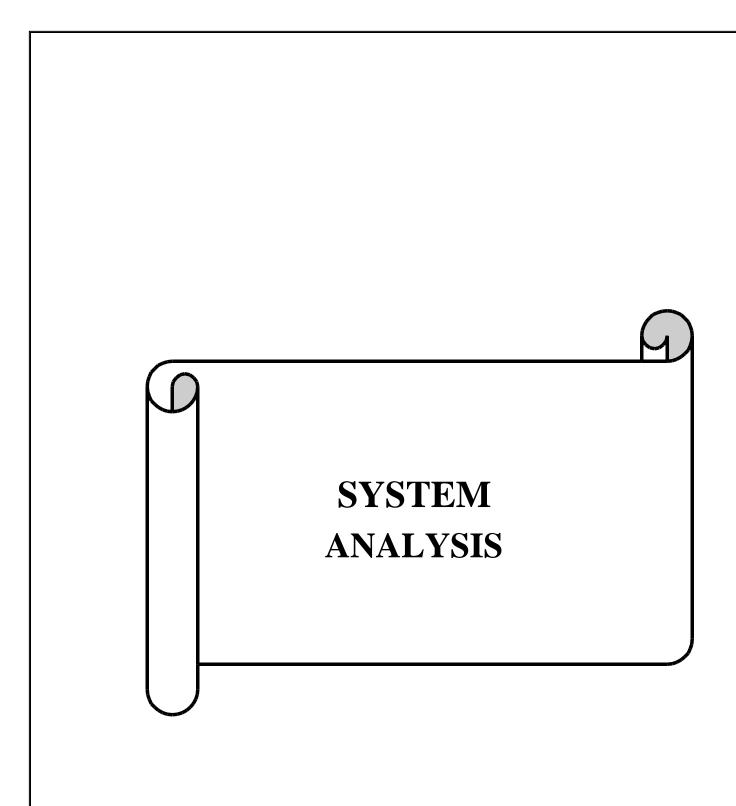
Asked were both open ended and close ended, which were related to user. Interaction with current system, updating and rules for record maintenance, reports generated by current system complications in the system as per use.

#### 2.Interview

We used this technique frequently in the system analysis after customer verification. The limited in our college related activity with the project. We them many times. This helped us understand all the stages involved In activity

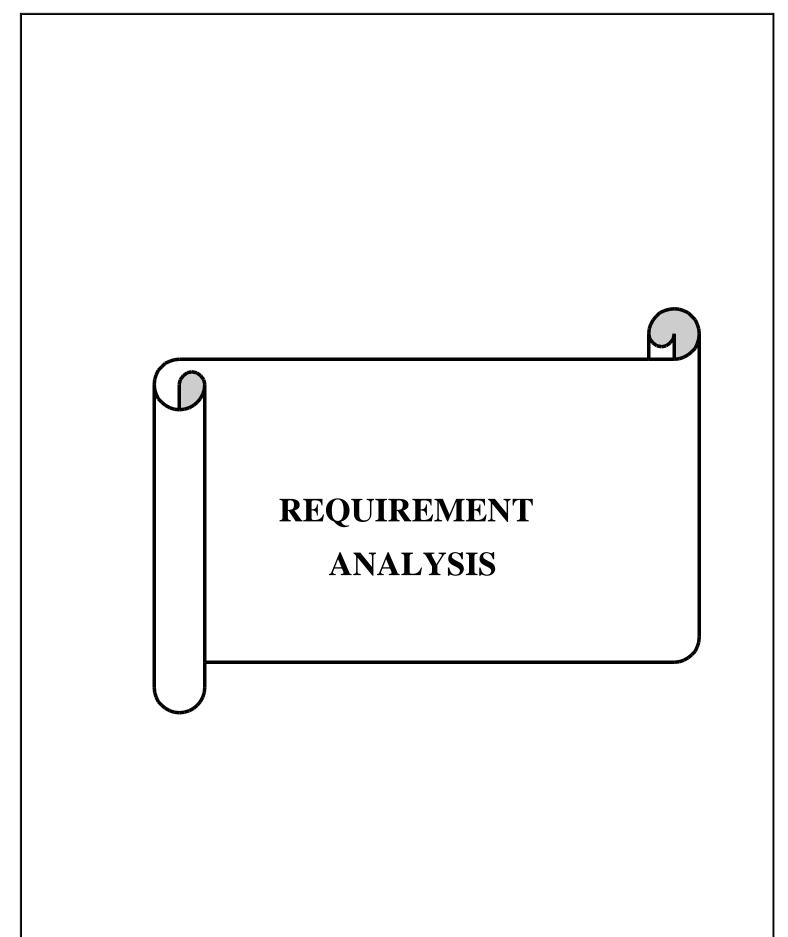
#### 3.Observation

While finding the facts we keenly observed all the activities in the organization. We paid attention to the transaction, usage of files and documents, the record keeping and the handling of the queries in the existing system. Observation helped us in finding out the actual way of functioning apart from the ideal or desired. This helped us majority in the interface design.



# **EXISTING SYSTEM**

- \* To run the application Internet Explorer 5.0 and above is required
- \* Time consuming
- \* Difficult to handle many methods and strategies.
- \* Difficult to maintain.



# **Functional Requirements**

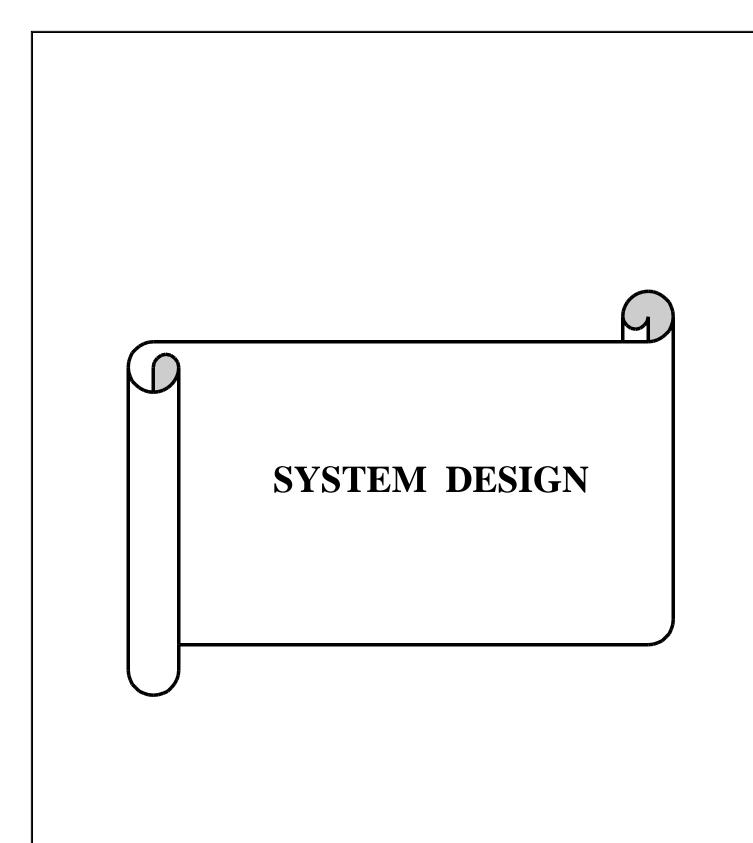
- The system shall provide a user friendly interface for students.
- Providing the best solutions for queries /questions of students.
- It can identify the intent of a question to provide an accurate answer.

# **Performance Requirements**

- **1. Responsiveness:** Define acceptable response times for the chatbot to ensure quick interactions and user satisfaction.
- **2. Concurrency:** Optimize database queries and server processes to handle multiple simultaneous requestes.

# **System Requirements**

- The system wants a minimum of 4 GB of RAM or higher to run all the options .
- It wants a dual core processor or equivalent.
- The system must be operated by some approved person as wrong hands will produce issue.
- Rest is all up to the user's usage can take care of the hardware.



#### **DESIGN CONSTRAINT**

#### FEASIBILITY STUDY

Feasibility Study refers to the determination that it is possible to automate the existing system. Feasibility study forms the most important phase in the system development life cycle so that the people who are affected by the system benefit from the change. This involves some very crude estimates of schedules of completion of the proposed system and the cost of the system. This study ensures that the system meets the objectives of the organization before it can be approved for development. It also involves the study of different risks involved in developing the system.

The major areas to consider while determining the feasibility of a system are:-

- 1. Technical Feasibility.
- 2. Operational Feasibility.
- 3. Economical Feasibility.

# 1. Technical Feasibility

It is the study of functions, performance and constraints .That may affect the ability to achieve an acceptable system. The issues raised during technical feasibility were

- 1. Does proposed equipment have technical capacity to hold data required to use the new system?
- 2. Will proposed system provide adequate responses to inquires, regardless number and location of user?
- 3. Can system be expanded if developed?
- 4. Are there any technical guarantees of accuracy, reliability, ease of access and data security? Discussing the above mentioned points we found system to technically feasible as existing equipment were cable to handle system.
- 5. Data can be added to existing system and system can provide feature of Accuracy, reliability, data security and ease of access.

# 2. Operational Feasibility

Operational feasibility refers to the determination that whether the system will operate and hence used by the end user or not.

Our input screens are familiar with their existing data processing environment, as we have checked acceptability of users for the input screens frequently.

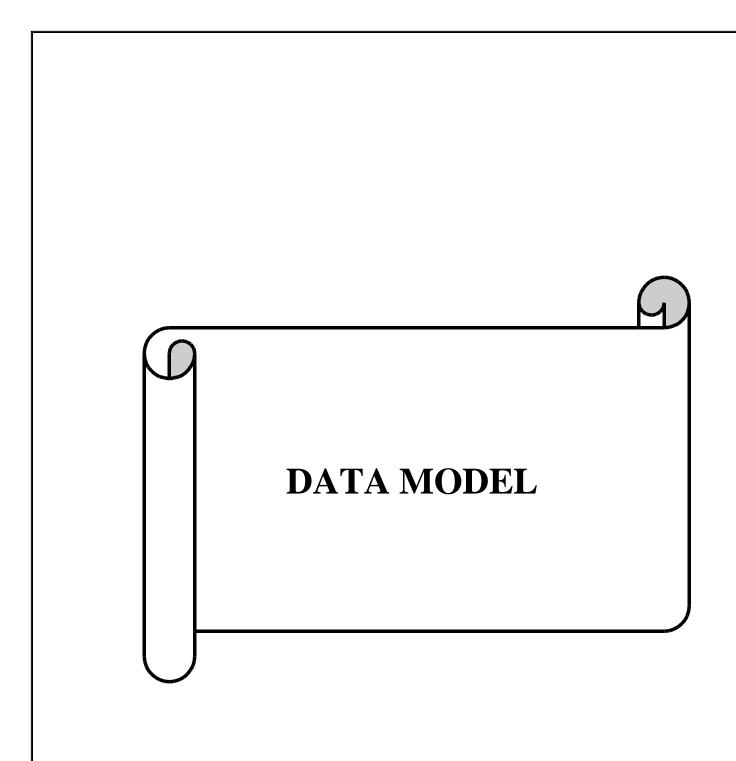
In the proposed system we don't require lots of work. One or two days training is sufficient to train the Administrator of this system. As system is very user friendly, they have lot ease at work.

# **3.**Economical Feasibility

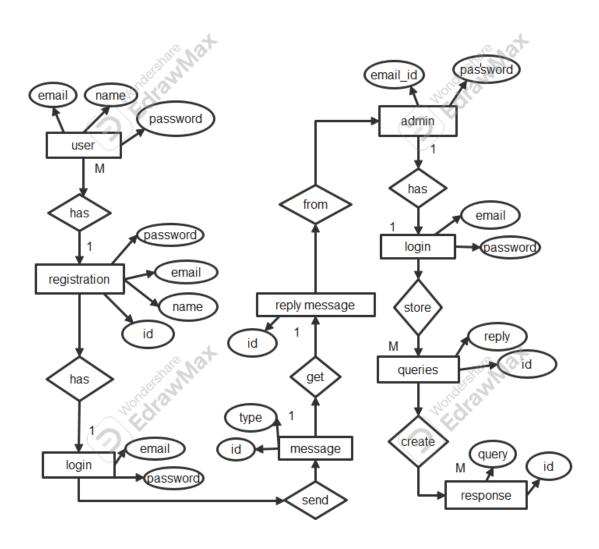
A system to be developed should be hotel management system. In general economical feasibility includes cost benefit analysis. The main point discussed by me during developing the system were.

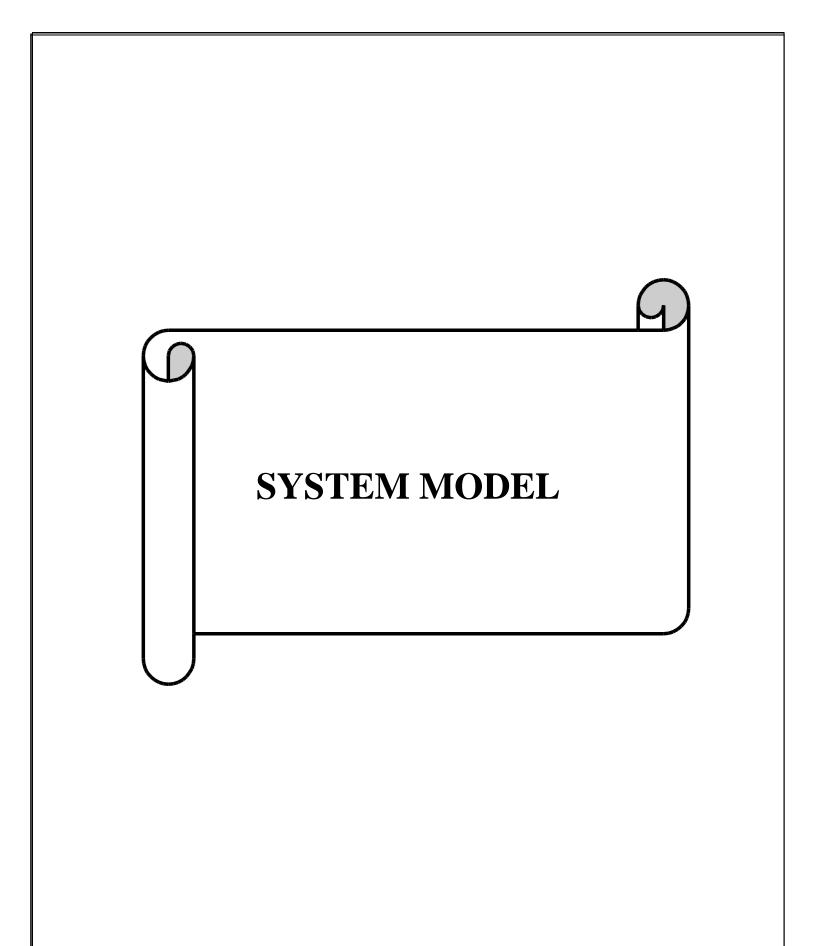
- 1. Cost of developing system.
- 2. Cost of hardware and software.
- 3. Cost of manpower handle the system.

The proposed system will require new hardware and software setup, and for the Administrator (user) it will require to give the initial training. The proposed system is economically feasible because it will save valuable time, money and it is more stable.

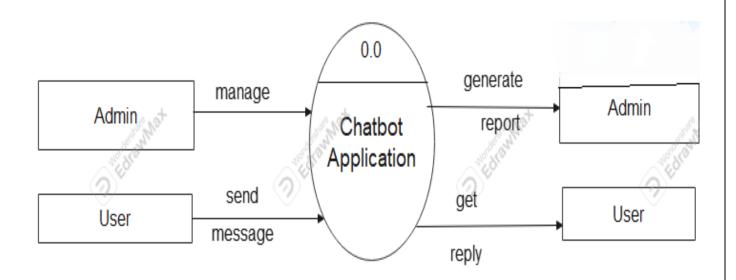


# ENTITY RELATIONSHIP DIAGRAM (ERD)





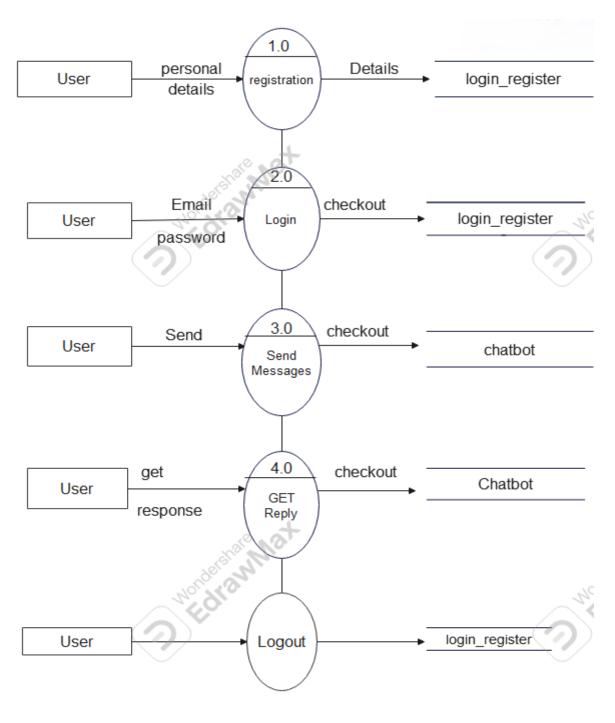
# **CONTEXT LEVEL DIAGRAM**



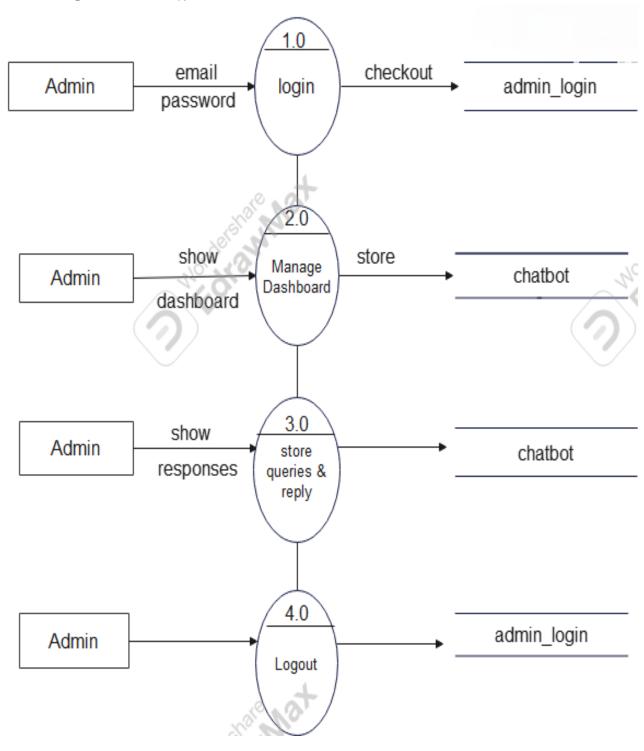
# **DATA FLOW DIAGRAM** (DFD)

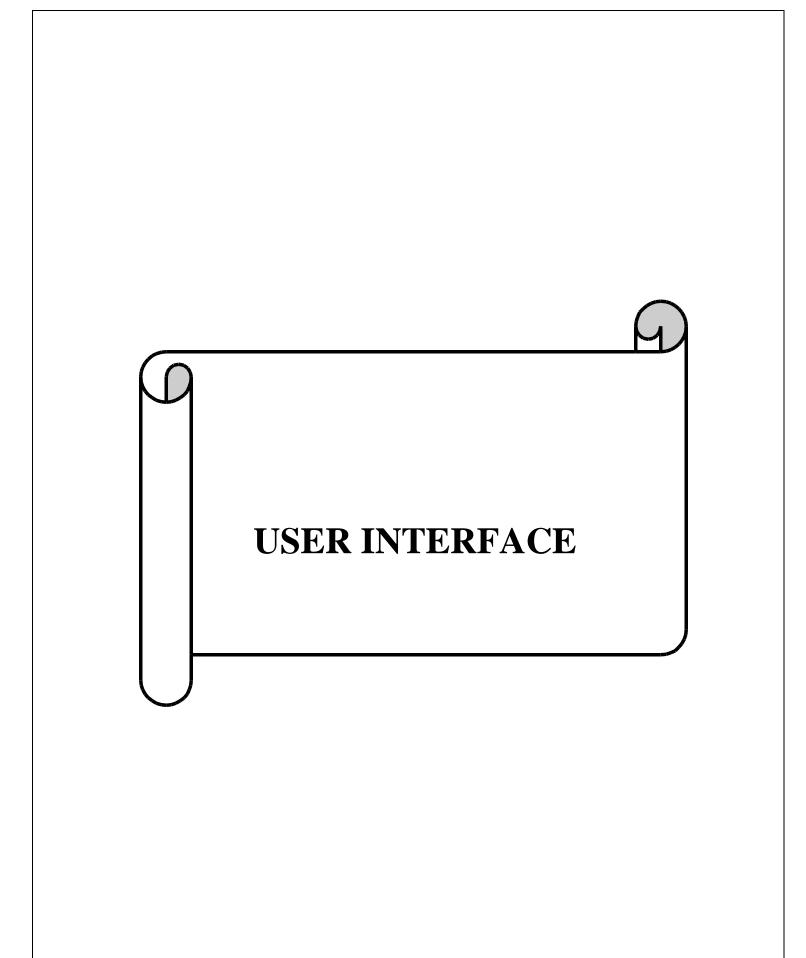
# DATA FLOW DIAGRAM (1st LEVEL)

#### **DFD FOR USER:**

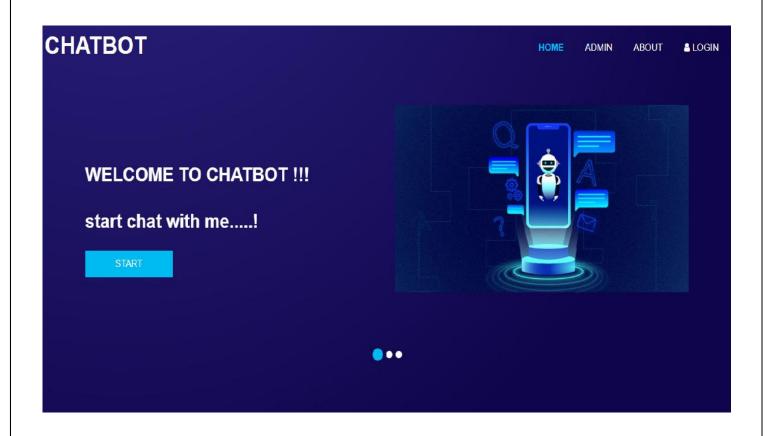


#### **DFD FOR ADMIN:**

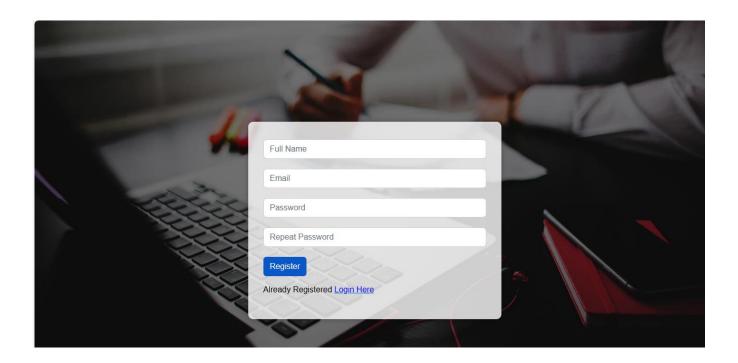




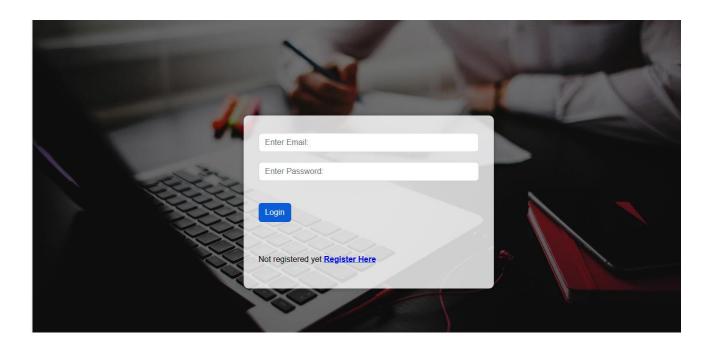
# **INDEX PAGE**



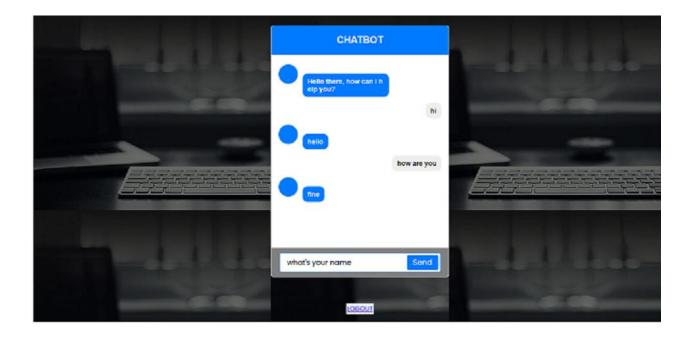
# **REGISTRATION PAGE**



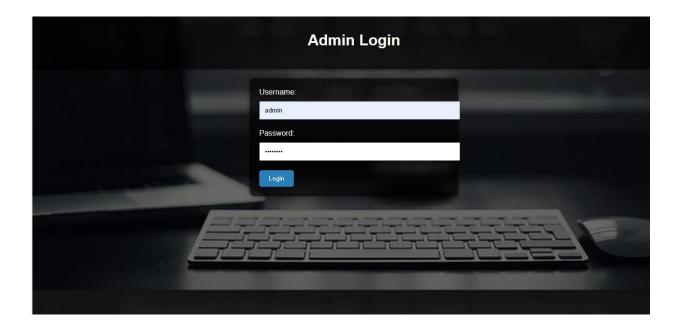
# **LOGIN PAGE**



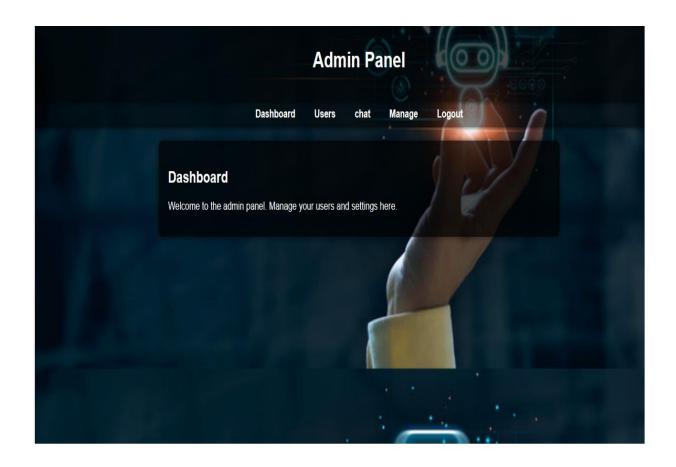
# **MAIN CHAT PAGE**



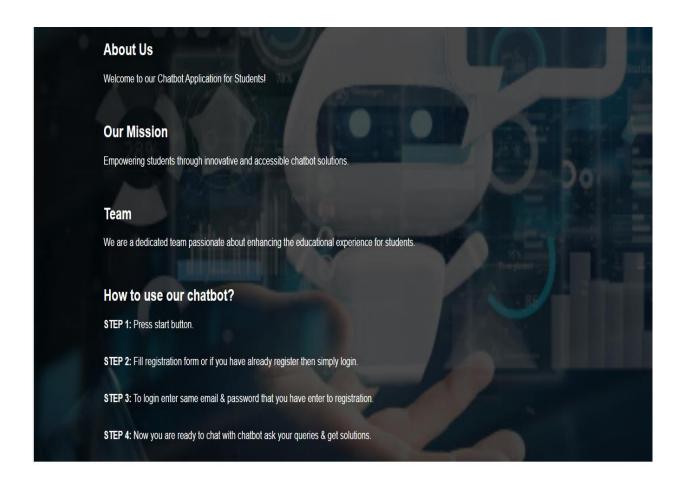
# **ADMIN LOGIN PAGE**



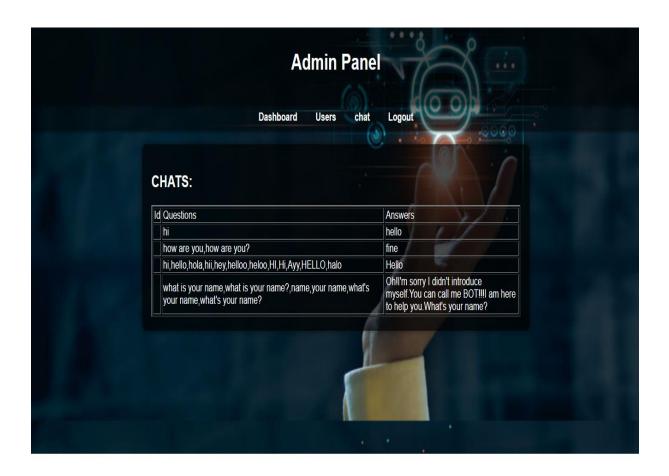
# **ADMIN PANEL PAGE**



# **ABOUT PAGE**

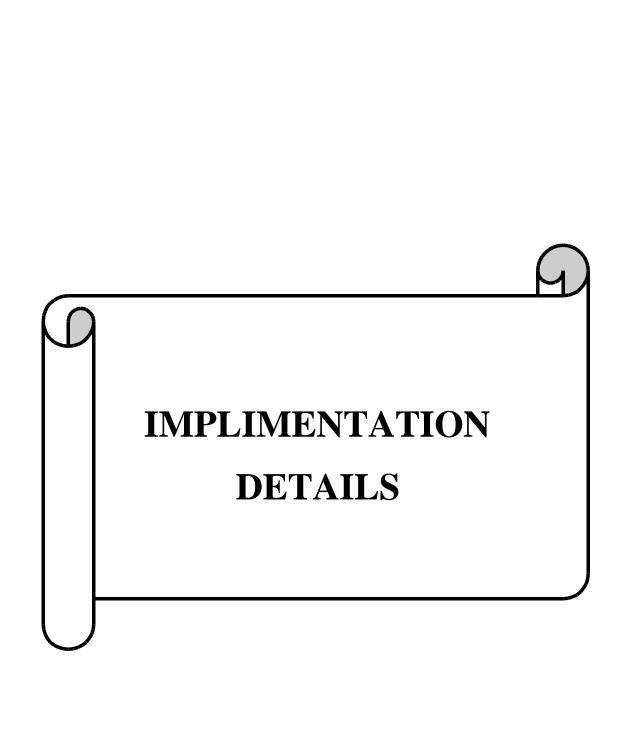


### **STORE CHAT PAGE**



# **REGISTRATION MEMBERS**





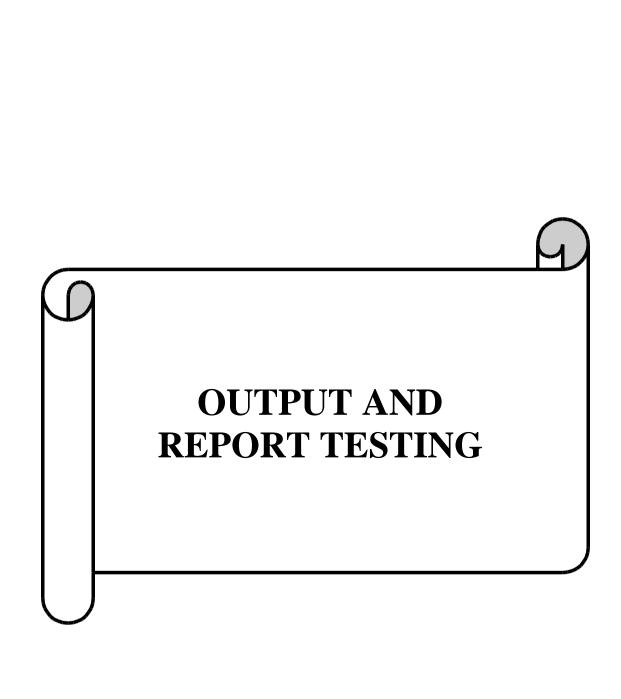
# HARDWARE AND SOFTWARE SPECIFICATIONS:

#### **Hardware Specification:**

- Pentium IV 1 GHz with at least 2 GB of RAM.
- CD-ROM with 64 bit driver.
- Minimum 128 GB HDD for data storage.
- Color monitor.
- Keyboard.
- Mouse.
- Printer.

#### **Software Specification:**

- Windows 10 Operating System.
- PHP
- XAMPP Server.



# BLACK BOX TESTING AND DATA VALIDATION TEST CASE

Test case for login module:

Steps Carried Out	Test Data	Expected Result	Actual Result
1. Enter user name and press login button  2. Enter password	User name Password	Should display warning message please enter password	Should display warning message enter password
and press login button	Password	Should display warning message invalid email and password	Should display warning message invalid email and password
3. Enter user name, password and press login button	User name="" Password="""	Show Username Password	Show Username Password

# WHITE BOX TESTING AND FUNCTIONAL VALIDATION TESTING

# Login:

Test Engineer	Thorat Nisha Balasaheb	
Test Case ID	1	
Date	10/01/2024	
Purpose	The purpose of this test in sure that the user can login with his id to use this app.	
Pre requirement	The customer enter his correct email and password For a successful login page email id, password	
Test data	Email id, password 1.Visit login page 2.Enter Email-id 3.Enter password 4.Click login button	
Status	Pass	

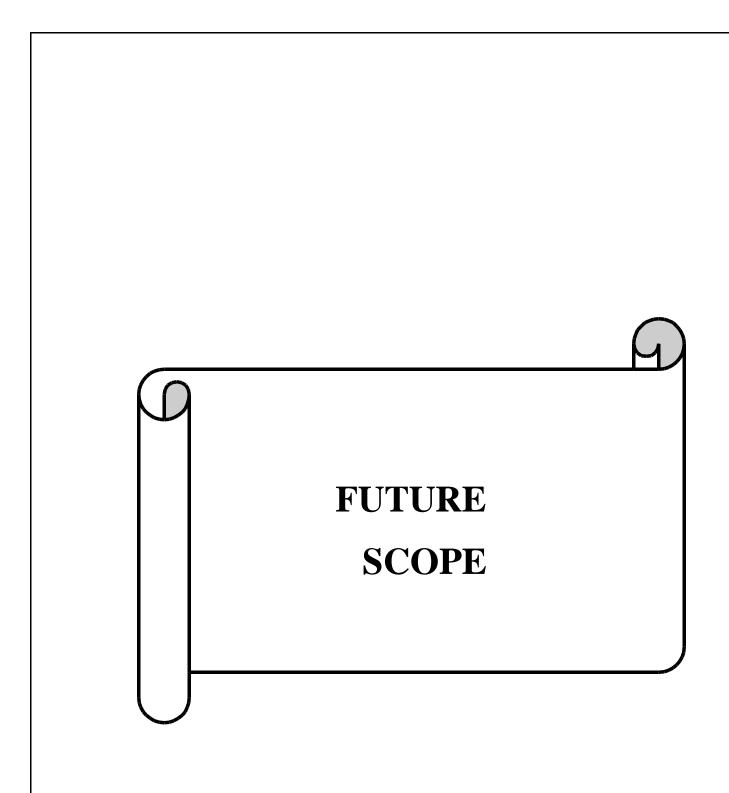
# **Registration:**

Test Engineer	Thorat Gayatri Bhausaheb	
Test Case ID	2	
Date	10/01/2024	
Purpose	The purpose of this test for register customer by his name	
Pre requirement	User sure that login with his name, id use this app.	
Test data	Name, password, email 1. Visit registration page. 2. Enter user name. 3. Enter user email. 4. Enter uaer password.	
Status	Pass	

# **CONCLUSION AND RECOMMENDATION**

# **Conclusion:**

- The application providing an userfriendly platform.
- \* Enhancing communication or providing useful informations .
- This project demonstrates the effective utilization of technology to streamline communication and support students in their academic journey.



# **Future Scope:**

- Integrate voice recognition technology to enable students to interact with the chatbot through voice commands, making it more effective.
- We will try to make it online application in future.
- Add Gaming elements such as quizzes and rewards within the chatbot interface.
- Supporting multiple languages for broader accessibility.

# **BIBLOGRAPHY AND** REFERENCE

# **Bibliography:**

### **1.PHP**:

- Vision, Nirali

# 2. Software Engineering:

- -Swati Jadhav
- -Aniket Nagane

WWW.W3SCHOOL.COM WWW.TECHIEXPERT.COM